

REMARKS

The title has been amended to be more descriptive as requested by the Examiner at page 2 of the Office Action.

The specification has been amended to update the status of various U.S. applications as requested by the Examiner at page 2 of the Office Action.

Rejections under 35 U.S.C. § 103

EP 1148029-A2 ("EP '029") in view of JP 2001-202956-A

Claims 1, 2, 5-10, 21, 23, 33-35, 38-39, 40-42 and 44

Claims 1, 2, 5-10, 21, 23, 33-35, 38-39, 40-42 and 44 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 1148029-A2 ("EP '029") in view of JP 2001-202956-A ("JP '956"). See pages 3-5 of the Office Action. Claims 1, 34, and 40 are independent.

Applicants have discovered an alkaline battery and a method of manufacturing an alkaline battery. The battery includes a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. See independent claims 1, 34 and 40.

The Examiner contends that "EP '029 discloses an alkaline battery and method of making comprising: a cathode comprising spherical beta nickel oxyhydroxide, a zinc anode, a separator between the anode and the cathode (Fig. 1) and an alkaline electrolyte.... The cathode mixture is formed by mixing an aqueous alkaline solution containing the alkaline electrolyte and nickel oxyhydroxide." See page 3 of the Office Action. The Examiner goes on to state "[t]he differences between the instant claims and EP '029 are that EP '029 does not teach of adding a gold salt to the nickel oxyhydroxide active material (claims 1, 6, 34 and 40) or of the content of the gold salt in the electrode active material (claims 7-9, 21-23 and 39)." See page 4 of the Office Action.

The Examiner relies on JP '956 for the teaching "of adding trivalent metal ions including gold to the nickel oxyhydroxide active material." See page 4 of the Office Action. The Examiner further states that "JP '956 discloses an alkaline battery comprising: a cathode comprising nickel oxyhydroxide and a gold additive (abstract and paragraph [0034], an anode, a separator between the anode and cathode (paragraphs [0031]-[0032] and Fig. 2) and an alkaline electrolyte (paragraph [0035] as applied to claims 1, 34 and 40)." See page 4 of the Office Action.

EP '029 does not teach or suggest a battery including a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. Specifically, nothing in EP '029 teaches or suggests a battery including a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. Indeed, there is no motivation to form a cathode including a gold salt in EP '029.

Moreover, JP '956 does not teach or suggest a battery including a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. Specifically, JP '956 does not teach or suggest a battery including a cathode including nickel oxyhydroxide and an anode including zinc. The battery described in JP '956 is a "nickel hydrogen battery". See JP '956 at paragraph [0027], line 1. In the battery described in JP '956, one electrode includes nickel, and the other electrode includes "a hydrogen storing metal alloy". See JP '956 at paragraph [0030], line 2. There is no motivation in JP '956 to form a battery having a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc.

There is no motivation to combine the teaching of EP '029, which relates to batteries having a zinc electrode, with the teachings of JP '956, which relates to batteries having a hydrogen storing metal alloy electrode. Without such a motivation, a *prima facie* case of obviousness has not been presented. A person of ordinary skill in the art would not have been motivated by the teachings of EP '029 to modify a cathode as described by JP '956. Conversely, a person of ordinary skill in the art would not have been motivated by the teachings of JP '956 to modify an anode to that described in EP '029. At best, the motivation for making this combination comes from Applicants' discovery and hindsight.

Accordingly, independent claims 1, 34 and 40, and claims that depend therefrom, are patentable over combinations of EP '029 and JP '056. Applicants respectfully request reconsideration and withdrawal of this rejection.

Other dependent claims

Various dependent claims have been rejected as being unpatentable over EP '029 in view of JP '956 in combination with other references. Specifically: (1) claims 3, 36 and 42 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of Megahed *et al.* "Stable gamma NiOOH/Zn button cells for electronic applications" ("Megahed") (see pages 5-6 of the Office Action); (2) claims 2-4, 35-37 and 42

have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of JP 06-260166-A ("JP '166") (see pages 6-7 of the Office Action); (3) claims 11-13, 15, and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of Megahed and EP 883198-A1 ("EP '198") (see pages 6-7 of the Office Action); (4) claims 11-13 and 16-18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of EP '198 (see pages 10-12 of the Office Action); (5) claim 20 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of EP 932211-A ("EP '211") (see pages 12-13 of the Office Action); (6) claim 20, 24 and 26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of U.S. Patent No. 5,508,121 to Sawa ("Sawa") (see page 13 of the Office Action); (7) claim 25 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of JP 08-329937 ("JP '937") (see page 14 of the Office Action); and (8) claims 28 and 29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EP '029 in view of JP '956, in further view of U.S. Patent No. 6,027,834 to Hayashi ("Hayashi") (see pages 14-15 of the Office Action). The rejected dependent claims depend from independent claims 1, 34, and 40.

None of Megahed, JP '166, EP '198, EP '211, Sawa, JP '937, nor Hayashi, describes or suggests a battery having a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. The Examiner continues to rely on EP '029 and JP '956 for teaching a battery having a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. However, none of the additional references -- Megahed, JP '166, EP '198, EP '211, Sawa, JP '937, and Hayashi -- alone or in combination can provide the missing motivation to combine the teachings of EP '029 and JP '956. For at least this reason, independent claims 1, 34 and 40, and claims that depend therefrom, are patentable over EP '029 and JP '956 combined with any of Megahed, JP '166, EP '198, EP '211, Sawa, JP '937, or Hayashi. Applicants respectfully request reconsideration and withdrawal of these rejections.

U.S. Patent No. 6,248,478 in view of JP '956

Claims 27 and 30-32 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,248,478 to Friend ("Friend") in view of JP '956. See pages 15-17 of the Office Action. Claims 27 and 30-32 depend from independent claim 1.

Applicants have discovered an alkaline battery and a method of manufacturing an alkaline battery. The battery includes a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. See independent claim 1.

The Examiner contends that "Friend discloses a primary alkaline battery comprising a NiOOH cathode, zinc anode, alkaline electrolyte and a separator.... The differences between Friend and the instant claims are that Friend does not disclose of adding a gold salt to the assembly (claim 1) or of the cell having the claimed capacity losses (claims 30-32)." See page 15 of the Office Action. The Examiner relies on JP '956 for the teaching "of adding trivalent metal ions including gold to the nickel oxyhydroxide active material." See page 15 of the Office Action.

As discussed with respect to EP '029, Friend does not teach or suggest a battery including a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. Specifically, nothing in Friend teaches or suggests a battery including a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. Indeed, there is no motivation to form a cathode including a gold salt in Friend. In fact, Friend relates generally to electrically conductive carbon microfibers. See Abstract of Friend.

Moreover, JP '956 does not teach or suggest a battery including a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc. Specifically, JP '956 describes a "nickel hydrogen battery" (see JP '956 at paragraph [0027], line 1) in which one electrode includes nickel, and the other electrode includes "a hydrogen storing metal alloy" (see JP '956 at paragraph [0030], line 2). There is no motivation in JP '956 to form a battery having a cathode including nickel oxyhydroxide and a gold salt and an anode including zinc.

There is no motivation to combine the teaching of Friend, which relates to batteries having a zinc electrode, with the teachings of JP '956, which relates to batteries having a hydrogen storing metal alloy electrode. Without such a motivation, a *prima facie* case of obviousness has not been presented. A person of ordinary skill in the art would not have been

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motivated by the teachings of Friend to modify a cathode as described by JP '956. Conversely, a person of ordinary skill in the art would not have been motivated by the teachings of JP '956 to modify an anode to that described in Friend. At best, the motivation for making this combination comes from Applicants' discovery and hindsight.

Accordingly, independent claim 1 and claims that depend therefrom are patentable over combinations of Friend and JP '056. Applicants respectfully request reconsideration and withdrawal of this rejection.

CONCLUSION

Applicants respectfully request that all claims be allowed. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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